Appendix C.3:
Toromont Building Footprint

Milne Port Infrastructure Toromont Shop Location (H349000-2000-00-016-0001, Rev. A)
Toromont Building Milne Port – Survey Dimensions Sketch
Project Wide Toromont Building Slab on Grade Plan (H349000-7234-30-035-000, Rev. A)

DWG. NO. H349000-2000-00-014-0004

MILNE INLET

E 503 600

E 503 800

E 504 000

N 7 976 200

N 7 976 000

2615-BLD-001
MARINE MANIFOLD
BUILDING

2521-BLD-002
WELDING SHOP
BUILDING

503802.995

503839.673

2521-BLD-001
MAINTENANCE
BUILDING

7976263.218

TORMOUNT
WAREHOSE

7976233.277

7232-BLD-011
SMOKE SHACK

2521-BLD-003
WORKSHOP
OFFICE
BUILDING

2521-BLD-004
WORKSHOP
OFFICE
WASHCAR

2750-BLD-003
SERVICES AREA
E-HOUSE •1

7235-BLD-002
SITE SERVICES
HEATED
WAREHOUSE

7235-BLD-003
SITE SERVICES
UNHEATED
WAREHOUSE

7232-BLD-008
SITE SERVICES
LUNCHROOM •2

7232-BLD-010
SITE SERVICES
WASHCAR •2

2511-BLD-003
ACCOMMODATION
LAUNDRY

7231-BLD-001
CONSTRUCTION
OFFICE •2

2750-BLD-001
ACCOMMODATION
AREA E-HOUSE •1

TEMP. POWER
GEN. UNIT

2511-BLD-002
ACCOMMODATION
OFFICE

2511-BLD-001
ACCOMMODATION
SERVICE CORE

2512-BLD-003
ACCOMMODATION
WING C

℄ RAMP TO
SEALIFT BARGE
LANDING AREA

SHIPPING
CONTAINERS (TYP.)

2750-BLD-005
FUEL TANK FARM
E-HOUSE

EFFLUENT
POND

SHIPPING
CONTAINERS

INCINERATOR
YARD (32mX30m)

2530-BLD-009 & 010
POWER GENERATION
E-HOUSE •1 AND •2

2530-BLD-001 TO 007
POWER GENERATION
MODULE •1 TO •7
FOR DETAILS
SEE DRAWING•
H349000-2530-50-042-0001

INCINERATOR

2540-BLD-001
WASTE
MANAGEMENT
BUILDING

2732-BLD-001
SEWAGE TRUCK
BUILDING

2750-BLD-004
SERVICES AREA
E-HOUSE •2

4731-VP-005
SEWAGE
TREATMENT
PLANT

FOR SERVICE BERM
DETAILS SEE DWG•
H349000-2000-00-014-0005

2720-BLD-001
WATER BUILDING

2513-BLD-002
EMERGENCY
RESPONSE
GARAGE

2513-BLD-001
EMERGENCY
RESPONSE
OFFICE

2512-BLD-004
ACCOMMODATION
WING D

2512-BLD-002
ACCOMMODATION
WING B

2510-PP-001
RAW SEWAGE
LIFT STATION

2750-BLD-002
ACCOMMODATION
AREA E-HOUSE •2

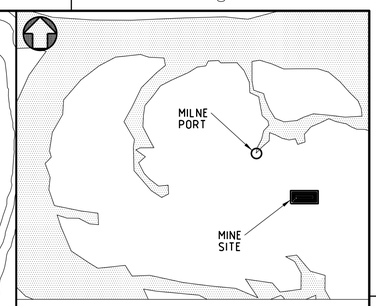
2750-BLD-002
ACCOMMODATION
AREA E-HOUSE •2

NEW PAD CORNER
N: 7 975 972.690
E: 504 030.682

2512-BLD-001
ACCOMMODATION
WING A

UNPREPARED AREA
OF PAD

0 10 20 30 40 50
SCALE IN METRES



KEY-PLAN

NOTES:

1. TOPOGRAPHY PROVIDED BY TERRAPOINT CANADA INC.
2. COORDINATE GRID IS SHOWN IN UTM (NAD83) ZONE 17 AND IS IN METRES.
3. CONTOURS ARE IN METRES. CONTOUR INTERVAL IS 1.5 METRES.
4. ALL 7000 SERIES MODULAR BUILDINGS ARE FOR CONSTRUCTION AND THEIR FINAL LOCATIONS WILL BE DETERMINED AT SITE BY THE CONSTRUCTION GROUP.
5. FOR FOLD-AWAY BUILDINGS SETOUT COORDINATES REFER TO APPLICABLE FOUNDATION DRAWINGS.

DRAWING NO.	DRAWING TITLE
H349000-2000-00-014-0001	EARLY REVENUE PHASE – SITE LAYOUT

REFERENCE DRAWINGS

PERMIT TO PRACTICE
HATCH LTD.
Signature
Date
PERMIT NUMBER: P 512
The Association of Professional Engineers, Geologists and Geophysicists of NWT/NU

NO.	DESCRIPTION	BY	CHK'D	APP'D	DATE

REVISIONS

REV.	ISSUE FOR	AUTH. BY	DATE

ISSUE AUTHORIZATION

HATCH™

DESIGNED BY T. THERTELL	DRAWN BY
DATE	DATE
CHECKED BY	DISCIP. ENGR.
DATE	DATE
PROJ. DES. COORD.	PROJ. ENGR.
DATE	DATE
PROJ. MGR.	
DATE	

Baffinland

MARY RIVER PROJECT

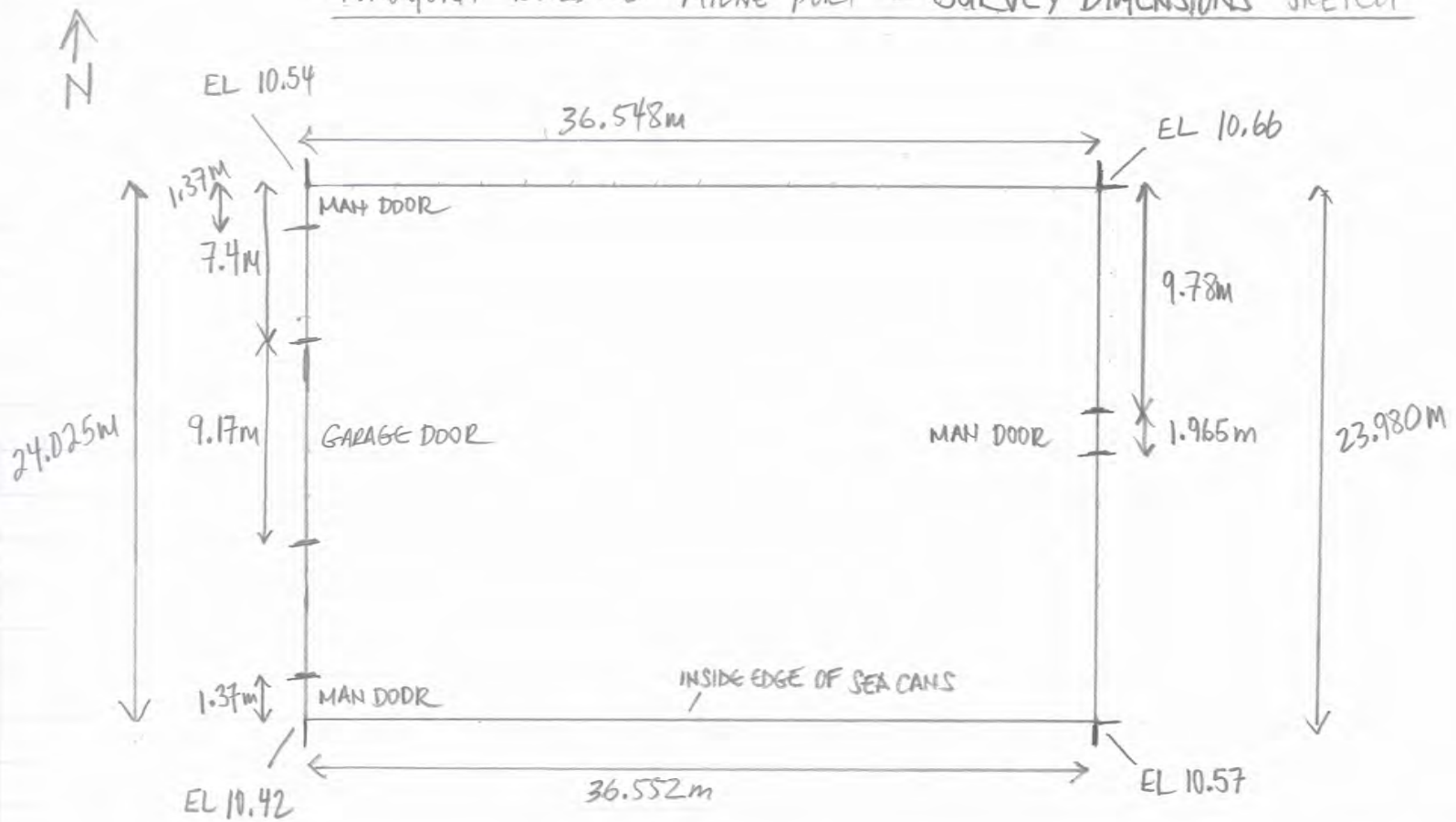
MILNE PORT
INFRASTRUCTURE
TORMONT SHOP LOCATION

SCALE	DWG. NO.	REV.
1:1000 OR AS NOTED	H349000-2000-00-016-0001	A

ORIGINAL SHEET SIZE: ISO A1 (841 x 594)

$USERNAME$
$DATE$
$FILE$
$TIME$

TORQMONT BUILDING MILNE PORT - SURVEY DIMENSIONS SKETCH



NOTES: 1. DIMS & ELEVATIONS SHOT FROM POINT WHERE SEA-CANS ABUTT (INSIDE CORNER),
2. SHOT W/ GPS AND USED DIST-DIST INTERSECTION.

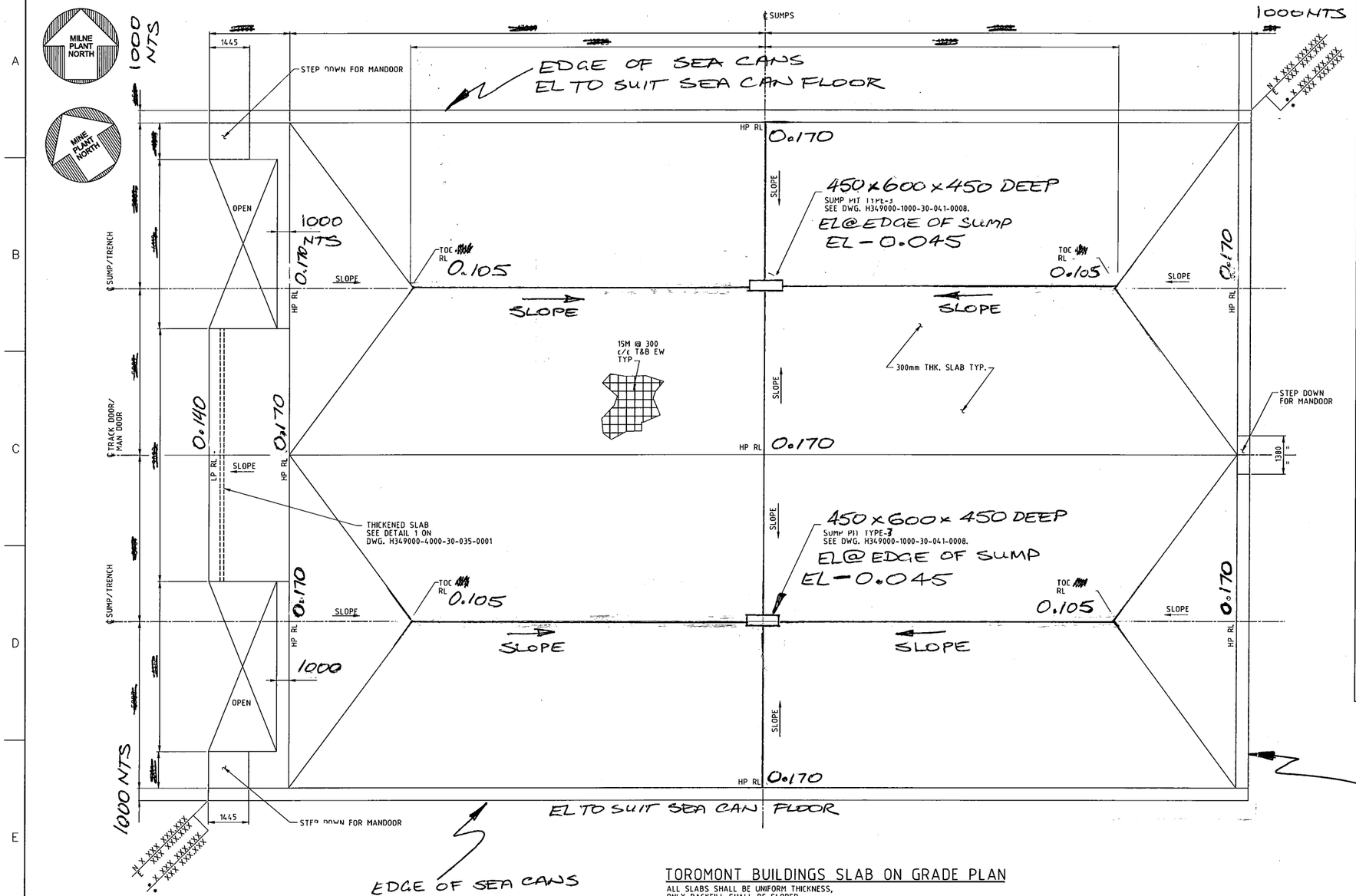
H349000-7234-50-016-0001
G. BURTON
JULY 26th 2014

HATCH™

CALCULATION SHEET

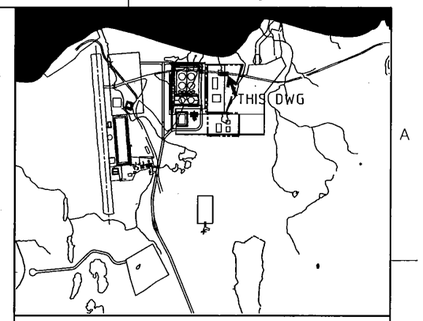
DESCRIPTION | PROJECT NO | MADE BY | DATE | CHECKED BY | DATE | SHEET NO. | OF

DWG. NO. H349000-7235-30-035-0005

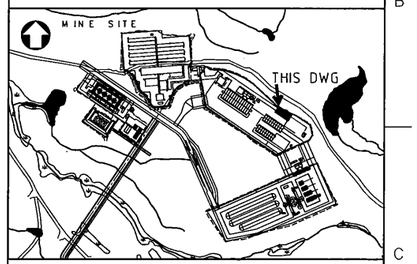


TOROMONT BUILDINGS SLAB ON GRADE PLAN

ALL SLABS SHALL BE UNIFORM THICKNESS,
ONLY BACKFILL SHALL BE SLOPED.
• REPRESENTS COORDINATES FOR MINE SITE LOCATION



MILNE KEY PLAN



MINE KEY PLAN

NOTES:

1. SEE DWG. H349000-0000-30-041-0001 FOR NOTES.
2. ALL STRUCTURAL STEEL BY OTHERS.
3. PROVIDE SAFE ACCESS TO ALL MAN DDORS, INTERNAL AND EXTERNAL.
4. FOR THE PURPOSE OF THIS DWG., RL DENOTES RELATIVE ELEVATION. RL 0.000 REPRESENTS THE UNDERSIDE OF PERIMETER SEA CANS.
5. FOR NON-FROST SUSCEPTIBLE BACKFILL REFER TO CIVIL DWG. H349000-1000-10-041-0001.

ABBREVIATIONS:

LPFS LOW POINT FINISH SURFACE

DRAWING NO.	DRAWING TITLE
REFERENCE DRAWINGS	

NO.	DESCRIPTION	BY	CHK'D	APP'D	DATE
REVISIONS					

REV.	ISSUE FOR	AUTH. BY	DATE
ISSUE AUTHORIZATION			

HATCH

DESIGNED BY A. HRAICHE DATE 27/06/14	DRAWN BY G KATZIRZ DATE 27/06/14
CHECKED BY DATE	DISCIP. ENGR. A. HRAICHE DATE 27/06/14
PROJ. DES. COORD. T. THERTELL DATE 27/06/14	PROJ. ENGR. J. CLELAND DATE
PROJ. MGR. S. PERRY DATE	

Baffinland

MARY RIVER PROJECT

PROJECT WIDE
TOROMONT BUILDING
SLAB ON GRADE PLAN

SCALE	DWG. NO.	REV.
1:75 OR AS NOTED	[illegible]	A

ORIGINAL SHEET SIZE: ISO A1 (841 x 594)

kcl. 16445
6/2/2014 2:32:01 PM
c:\pr\projectwise\katz46445\dms74825\H349000-7235-30-035-0005.dgn

H349000-7234-30-035-0001
FS01

Appendix C.4:
Tote Road Bridges

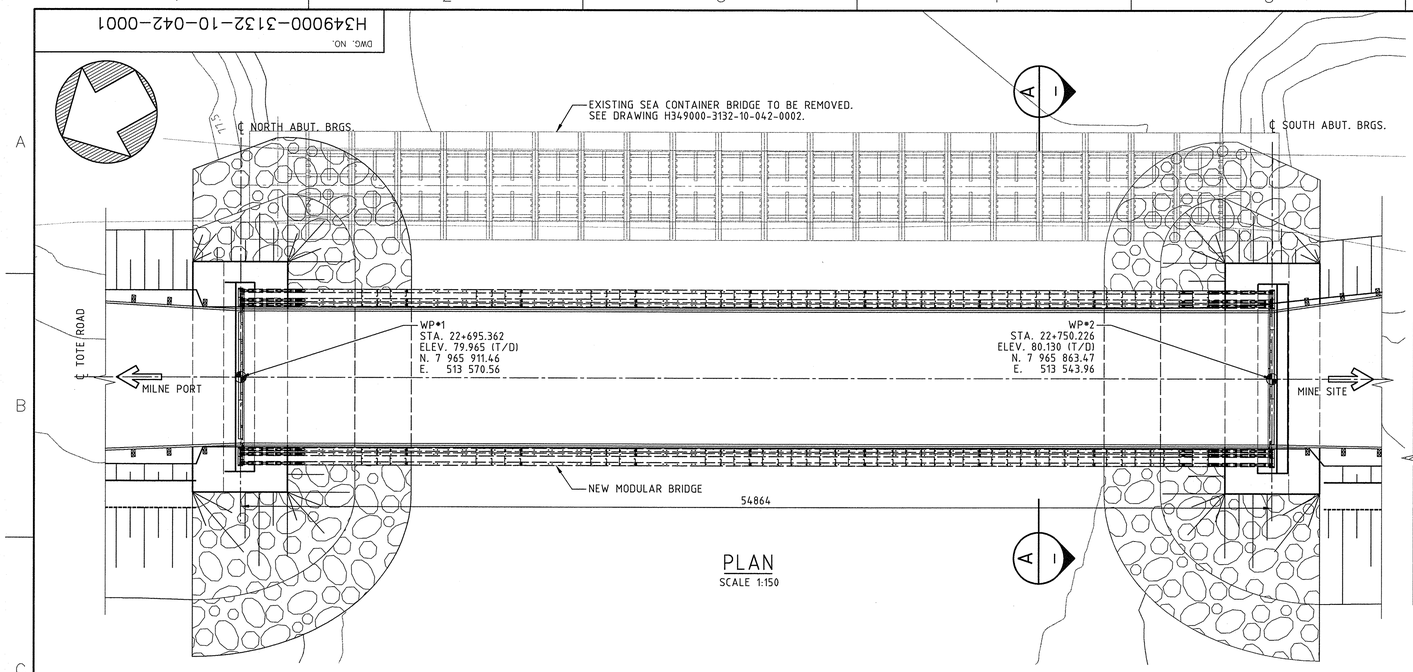
Tote Road River Crossing at STA.17 General Arrangement (H349000-3132-10-042-0001, Rev. 0)

Tote Road River Crossing at STA.62 General Arrangement (H349000-3133-10-042-0001, Rev. 0)

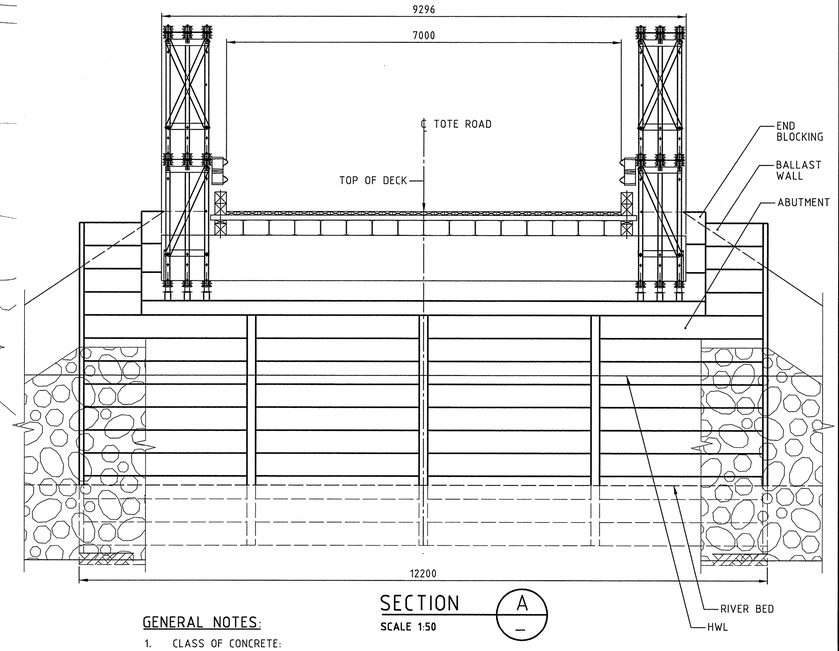
Tote Road River Crossing at STA.80 General Arrangement (H349000-3134-10-042-0001, Rev. 0)

Tote Road River Crossing at STA.97 General Arrangement (H349000-3135-10-042-0001, Rev. 0)

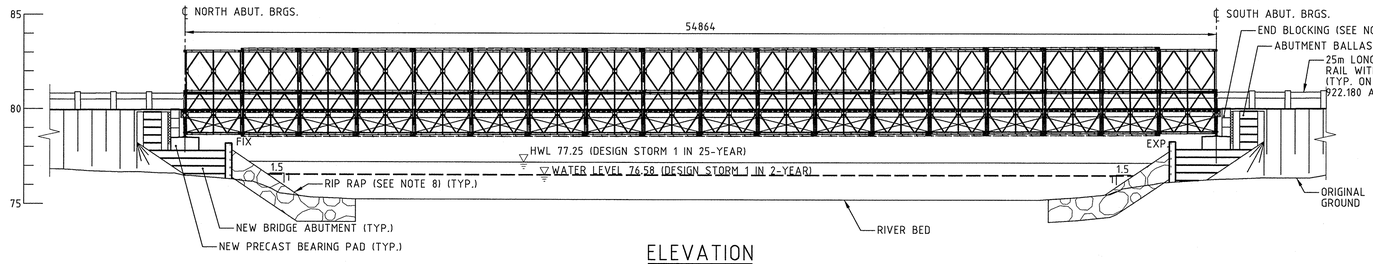
DWG. NO. H349000-3132-10-042-0001



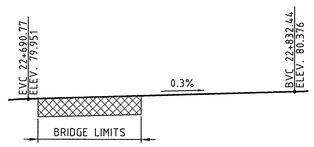
PLAN
SCALE 1:150



SECTION A–A
SCALE 1:50



ELEVATION
SCALE 1:150



PROFILE ALONG CENTERLINE OF TOTE ROAD
NTS

GENERAL NOTES:

1. CLASS OF CONCRETE:
   PRECAST BEARING PAD AND END BLOCKING.....30MPa
   REMAINDER.....30MPa
2. CLEAR COVER TO REINFORCING STEEL:
   PRECAST BEARING PAD.....70±20
   UNLESS OTHERWISE NOTED.
3. REINFORCING STEEL SHALL BE GRADE 400W.
4. UNLESS SHOWN OTHERWISE, TENSION LAP SPLICES SHALL BE CLASS B.
5. BAR HOOKS, WHERE REQUIRED, SHALL BE MINIMUM LENGTH AND STIRRUPS SHALL HAVE MINIMUM HOOKS AS PER MANUFACTURER'S GUIDELINES UNLESS INDICATED OTHERWISE.
6. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
7. ALL ELEVATIONS AND COORDINATES ARE IN METERS UNLESS NOTED OTHERWISE.
8. SEE DRAWING H349000-3130-10-035-0001 FOR ABUTMENT, RIP RAP AND END BLOCKING DETAILS.
9. REFER TO BRIDGE AND ABUTMENT SUPPLIERS' DRAWINGS FOR MORE DETAILS.
10. THE BRIDGE AND ABUTMENT IS DESIGNED FOR ONE DESIGN TRUCK PASSING OVER THE BRIDGE AT EACH TIME.

ABBREVIATION:

ABUT.	ABUTMENT
BRGS.	BEARINGS
℄	CENTRELINE
ELEV.	ELEVATION
EXP.	EXPANSION
HWL	HIGH WATER LEVEL
NTS	NOT TO SCALE
TYP.	TYPICAL
T/D	TOP OF DECK
WP	WORKING POINT

CONSTRUCTION NOTES

1. THE MODULAR BRIDGE, LAUNCHING NOSE, ROLLERS, PRECAST CONCRETE BEARING PAD, END BLOCKING, STEEL BEAM GUIDE RAIL SYSTEM AND BRIDGE ABUTMENT COMPONENTS TO BE SUPPLIED BY BAFFINLAND (THE OWNER) ARE TO BE SHIPPED TO THE CROSSING SITE.
2. ALL BACKFILL MATERIALS AND RIP RAP IS SUPPLIED BY BAFFINLAND (THE OWNER)
3. ALL EXCAVATION ON SITE IS TO BE DONE BY OTHERS.
4. THE CONTRACTOR IS RESPONSIBLE FOR ERECTING ALL COMPONENTS OF THE MODULAR BRIDGE AND BRIDGE ABUTMENTS AND BACKFILLING IN ACCORDANCE WITH THE MANUFACTURERS' SPECIFICATIONS.
5. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING THE PRECAST CONCRETE BEARING PAD, END BLOCKING AND STEEL BEAM GUIDE RAIL SYSTEM.
6. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS OF THE PROPOSED WORK AND ALL DETAILS ON SITE AND REPORT ANY DISCREPANCIES TO THE CONTRACT ADMINISTRATOR BEFORE PROCEEDING WITH THE WORK.
7. THE CONTRACTOR SHALL ENSURE THE STABILITY OF ALL COMPONENTS DURING HANDLING, TRANSPORTATION AND ERECTION UNTIL THE COMPONENTS ARE IN THE FINAL LOCATION WITH ALL PERMANENT BRACING, CONNECTIONS AND SUPPORTS IN PLACE.
8. GRADE AND ADD FILL ON THE EXISTING TOTE ROAD AS REQUIRED TO FACILITATE ONE WAY TRAFFIC ACROSS THE SEQUENCE DURING NEW BRIDGE LAUNCHING.

FOR CONSTRUCTION

DRAWING NO.	DRAWING TITLE
REFERENCE DRAWINGS	

PERMIT TO PRACTICE
HATCH LTD.
Signature
Date 30 Aug 13
PERMIT NUMBER: P 512
The Association of Professional Engineers, Geologists and Geophysicists of NWT/NU

NO.	DESCRIPTION	BY	CHK'D	APP'D	DATE
REVISIONS					

REGISTERED PROFESSIONAL ENGINEER
X TOLOVSKI
LICENSEE
NT/NU

REV.	ISSUE FOR	AUTH. BY	DATE
0	CONSTRUCTION	LG JT	2013-08-30
ISSUE AUTHORIZATION			

HATCH™

DESIGNED BY L. GUO DATE 2013-08-23	DRAWN BY C. REN DATE 2013-08-23
CHECKED BY M. KARABELAS DATE 2013-08-23	DISCIP. ENGR. J. TOLOVSKI DATE 2013-08-23
PROJ. DES. COORD. T. THERTELL DATE 2013-08-23	PROJ. ENGR. J. CLELAND DATE 2013-08-23
PROJ. MGR. S. PERRY DATE 2013-08-23	

Baffinland

MARY RIVER PROJECT

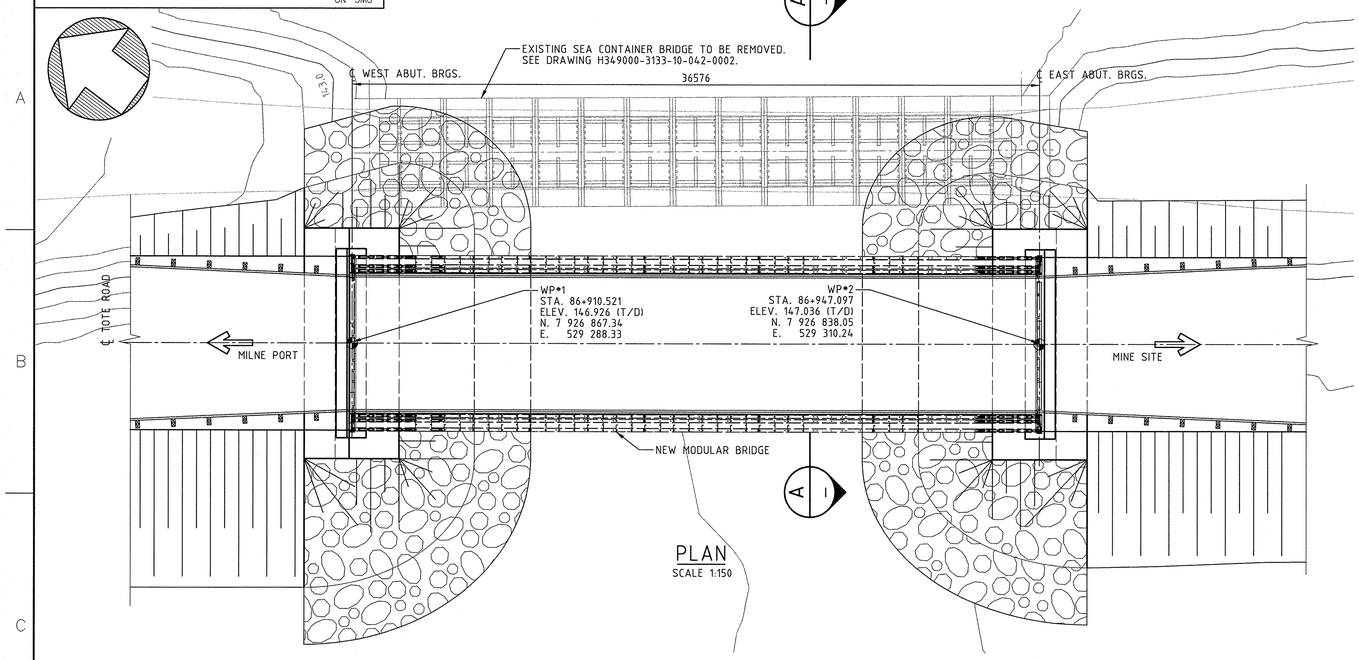
TOTE ROAD
RIVER CROSSING AT STA. 17
GENERAL ARRANGEMENT

SCALE	DWG. NO.	REV.
OR AS NOTED	H349000-3132-10-042-0001	0

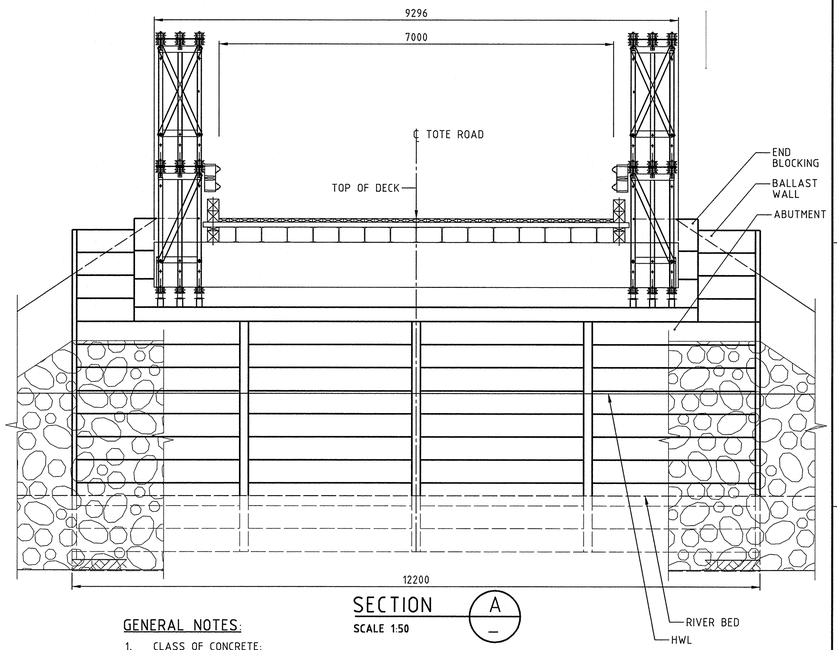
ORIGINAL SHEET SIZE: ISO A1 (841 x 594)

rev56609
8/30/2013 2:52:48 PM
c:\pr\projectwise\ren56609\dms74793\H349000-3132-10-042-0001.dgn

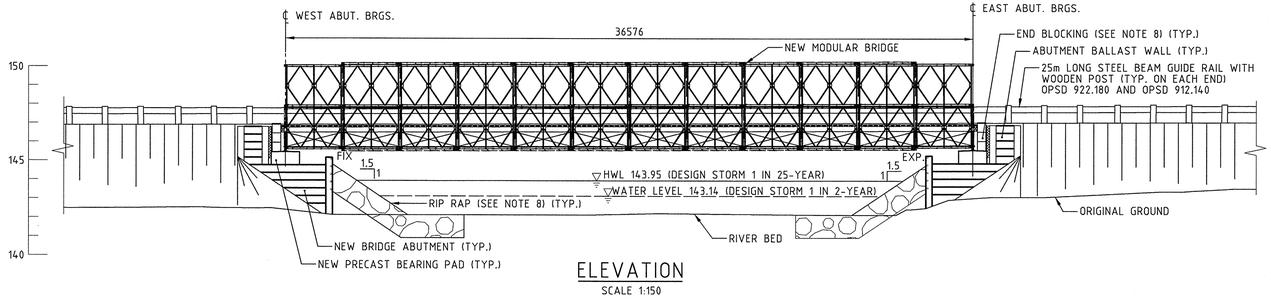
DWG. NO. H349000-3133-10-042-0001



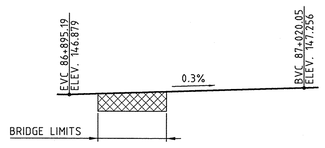
PLAN
SCALE 1:150



SECTION A–A
SCALE 1:50



ELEVATION
SCALE 1:150



PROFILE ALONG CENTERLINE OF TOTE ROAD
NTS

GENERAL NOTES:

1. CLASS OF CONCRETE:
   PRECAST BEARING PAD AND END BLOCKING.....30MPa
   REMAINDER.....30MPa
2. CLEAR COVER TO REINFORCING STEEL:
   PRECAST BEARING PAD.....70±20
   UNLESS OTHERWISE NOTED.
3. REINFORCING STEEL SHALL BE GRADE 400W.
4. UNLESS SHOWN OTHERWISE, TENSION LAP SPLICES SHALL BE CLASS B.
5. BAR HOOKS, WHERE REQUIRED, SHALL BE MINIMUM LENGTH AND STIRRUPS SHALL HAVE MINIMUM HOOKS AS PER MANUFACTURER'S GUIDELINES UNLESS INDICATED OTHERWISE.
6. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
7. ALL ELEVATIONS AND COORDINATES ARE IN METERS UNLESS NOTED OTHERWISE.
8. SEE DRAWING H349000-3130-10-035-0001 FOR ABUTMENT, RIP RAP AND END BLOCKING DETAILS.
9. REFER TO BRIDGE AND ABUTMENT SUPPLIERS' DRAWINGS FOR MORE DETAILS.
10. THE BRIDGE AND ABUTMENT IS DESIGNED FOR ONE DESIGN TRUCK PASSING OVER THE BRIDGE AT EACH TIME.

ABBREVIATION:

ABUT.	ABUTMENT
BRGS.	BEARINGS
℄	CENTRELINE
ELEV.	ELEVATION
EXP.	EXPANSION
HWL	HIGH WATER LEVEL
NTS	NOT TO SCALE
TYP.	TYPICAL
T/D	TOP OF DECK
WP	WORKING POINT

CONSTRUCTION NOTES

1. THE MODULAR BRIDGE, LAUNCHING NOSE, ROLLERS, PRECAST CONCRETE BEARING PAD, END BLOCKING, STEEL BEAM GUIDE RAIL SYSTEM AND BRIDGE ABUTMENT COMPONENTS TO BE SUPPLIED BY BAFFINLAND (THE OWNER) ARE TO BE SHIPPED TO THE CROSSING SITE.
2. ALL BACKFILL MATERIALS AND RIP RAP IS SUPPLIED BY BAFFINLAND (THE OWNER)
3. ALL EXCAVATION ON SITE IS TO BE DONE BY OTHERS.
4. THE CONTRACTOR IS RESPONSIBLE FOR ERECTING ALL COMPONENTS OF THE MODULAR BRIDGE AND BRIDGE ABUTMENTS AND BACKFILLING IN ACCORDANCE WITH THE MANUFACTURERS' SPECIFICATIONS.
5. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING THE PRECAST CONCRETE BEARING PAD, END BLOCKING AND STEEL BEAM GUIDE RAIL SYSTEM.
6. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS OF THE PROPOSED WORK AND ALL DETAILS ON SITE AND REPORT ANY DISCREPANCIES TO THE CONTRACT ADMINISTRATOR BEFORE PROCEEDING WITH THE WORK.
7. THE CONTRACTOR SHALL ENSURE THE STABILITY OF ALL COMPONENTS DURING HANDLING, TRANSPORTATION AND ERECTION UNTIL THE COMPONENTS ARE IN THE FINAL LOCATION WITH ALL PERMANENT BRACING, CONNECTIONS AND SUPPORTS IN PLACE.
8. GRADE AND ADD FILL ON THE EXISTING TOTE ROAD AS REQUIRED TO FACILITATE ONE WAY TRAFFIC ACROSS THE SEQUENCE DURING NEW BRIDGE LAUNCHING.

FOR CONSTRUCTION

DRAWING NO.	DRAWING TITLE
REFERENCE DRAWINGS	

PERMIT TO PRACTICE
HATCH LTD.
Signature
Date 30 Aug 13
PERMIT NUMBER: P 512
The Association of Professional Engineers, Geologists and Geophysicists of NWT/NU

NO.	DESCRIPTION	BY	CHK'D	APP'D	DATE
REVISIONS					

REGISTERED PROFESSIONAL ENGINEER
W. TOLOVSKI
LICENSEE
30/08/13
NT/NU

REV.	ISSUE FOR	AUTH. BY	DATE
0	CONSTRUCTION	LG JT	2013-08-30
ISSUE AUTHORIZATION			

HATCH

DESIGNED BY	DRAWN BY
L. GUO	C. REN
DATE 2013-08-23	DATE 2013-08-23
CHECKED BY	DISCIP. ENGR.
M. KARABELA	J. TOLOVSKI
DATE 2013-08-23	DATE 2013-08-23
PROJ. DES. COORD.	PROJ. ENGR.
T. THERTELL	J. CLELAND
DATE 2013-08-23	DATE 2013-08-23
PROJ. MGR.	
S. PERRY	
DATE 2013-08-23	

Baffinland

MARY RIVER PROJECT

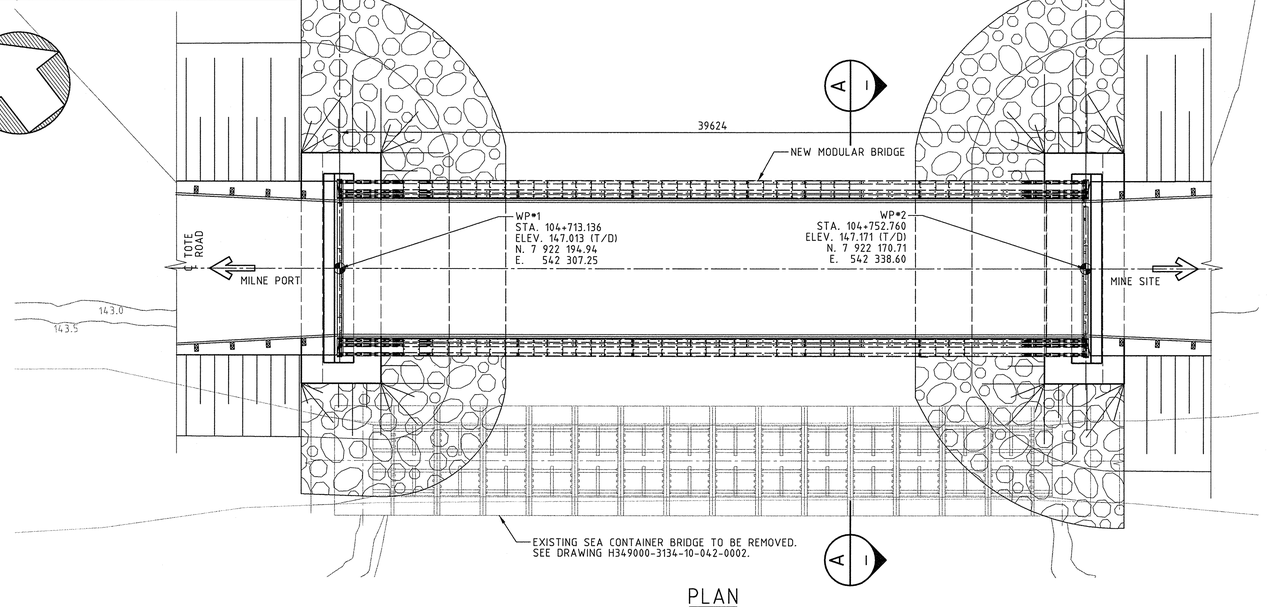
TOTE ROAD
RIVER CROSSING AT STA. 62
GENERAL ARRANGEMENT

SCALE	DWG. NO.	REV.
OR AS NOTED	H349000-3133-10-042-0001	0

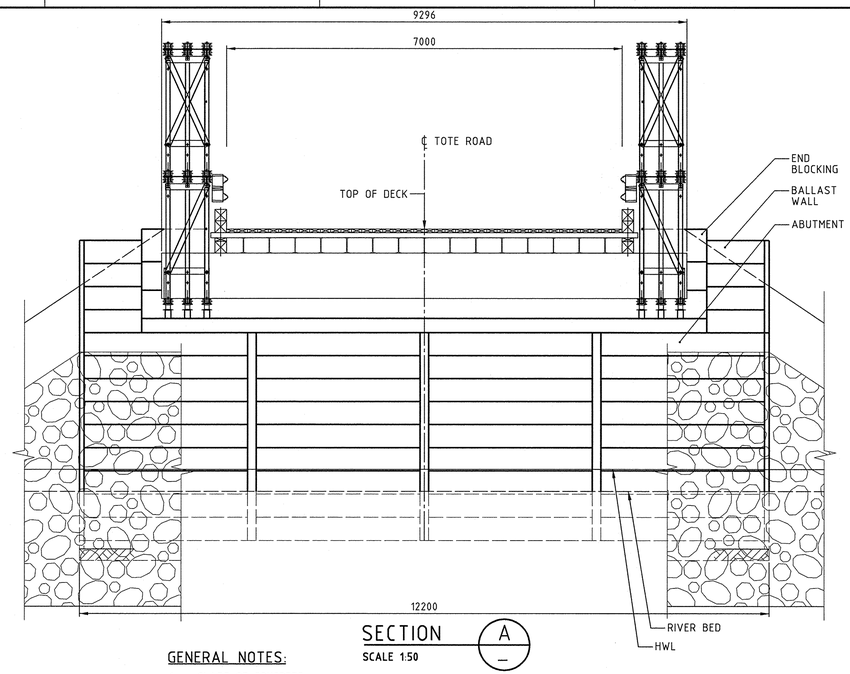
ORIGINAL SHEET SIZE: ISO A1 (841 x 594)

ren56609
8/30/2013 2:51:01 PM
c:\prj\projectwise\ren56609\dms74793\H349000-3133-10-042-0001.dgn

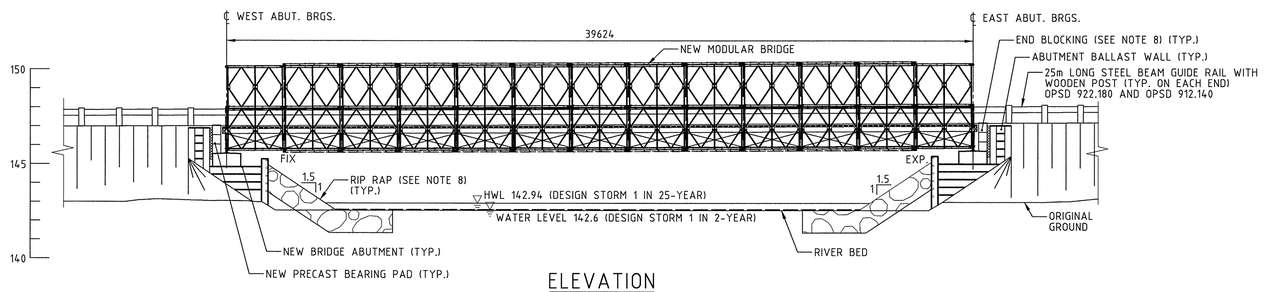
DWG. NO. H349000-3134-10-042-0001



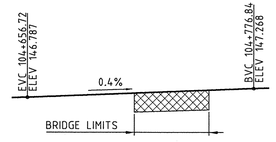
PLAN
SCALE 1:150



SECTION A–A
SCALE 1:50



ELEVATION
SCALE 1:150



PROFILE ALONG CENTERLINE OF TOTE ROAD
NTS

ABBREVIATION:

ABUT.	ABUTMENT
BRGS.	BEARINGS
℄	CENTRELINE
ELEV.	ELEVATION
EXP.	EXPANSION
HWL	HIGH WATER LEVEL
NTS	NOT TO SCALE
TYP.	TYPICAL
T/D	TOP OF DECK
WP	WORKING POINT

FOR CONSTRUCTION

GENERAL NOTES:

1. CLASS OF CONCRETE:
   PRECAST BEARING PAD AND END BLOCKING.....30MPa
   REMAINDER.....30MPa
2. CLEAR COVER TO REINFORCING STEEL:
   PRECAST BEARING PAD.....70±20
   UNLESS OTHERWISE NOTED.
3. REINFORCING STEEL SHALL BE GRADE 400W.
4. UNLESS SHOWN OTHERWISE, TENSION LAP SPLICES SHALL BE CLASS B.
5. BAR HOOKS, WHERE REQUIRED, SHALL BE MINIMUM LENGTH AND STIRRUPS SHALL HAVE MINIMUM HOOKS AS PER MANUFACTURER'S GUIDELINES UNLESS INDICATED OTHERWISE.
6. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
7. ALL ELEVATIONS AND COORDINATES ARE IN METERS UNLESS NOTED OTHERWISE.
8. SEE DRAWING H349000-3130-10-035-0001 FOR ABUTMENT, RIP RAP AND END BLOCKING DETAILS.
9. REFER TO BRIDGE AND ABUTMENT SUPPLIERS' DRAWINGS FOR MORE DETAILS.
10. THE BRIDGE AND ABUTMENT IS DESIGNED FOR ONE DESIGN TRUCK PASSING OVER THE BRIDGE AT EACH TIME.

CONSTRUCTION NOTES

1. THE MODULAR BRIDGE, LAUNCHING NOSE, ROLLERS, PRECAST CONCRETE BEARING PAD, END BLOCKING, STEEL BEAM GUIDE RAIL SYSTEM AND BRIDGE ABUTMENT COMPONENTS TO BE SUPPLIED BY BAFFINLAND (THE OWNER) ARE TO BE SHIPPED TO THE CROSSING SITE.
2. ALL BACKFILL MATERIALS AND RIP RAP IS SUPPLIED BY BAFFINLAND (THE OWNER)
3. ALL EXCAVATION ON SITE IS TO BE DONE BY OTHERS.
4. THE CONTRACTOR IS RESPONSIBLE FOR ERECTING ALL COMPONENTS OF THE MODULAR BRIDGE AND BRIDGE ABUTMENTS AND BACKFILLING IN ACCORDANCE WITH THE MANUFACTURERS' SPECIFICATIONS.
5. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING THE PRECAST CONCRETE BEARING PAD, END BLOCKING AND STEEL BEAM GUIDE RAIL SYSTEM.
6. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS OF THE PROPOSED WORK AND ALL DETAILS ON SITE AND REPORT ANY DISCREPANCIES TO THE CONTRACT ADMINISTRATOR BEFORE PROCEEDING WITH THE WORK.
7. THE CONTRACTOR SHALL ENSURE THE STABILITY OF ALL COMPONENTS DURING HANDLING, TRANSPORTATION AND ERECTION UNTIL THE COMPONENTS ARE IN THE FINAL LOCATION WITH ALL PERMANENT BRACING, CONNECTIONS AND SUPPORTS IN PLACE.
8. GRADE AND ADD FILL ON THE EXISTING TOTE ROAD AS REQUIRED TO FACILITATE ONE WAY TRAFFIC ACROSS THE SEQUENCE DURING NEW BRIDGE LAUNCHING.

DRAWING NO.	DRAWING TITLE
REFERENCE DRAWINGS	

PERMIT TO PRACTICE
HATCH LTD.
Signature
Date 30-Apr-13
PERMIT NUMBER: P 512
The Association of Professional Engineers, Geologists and Geophysicists of NWT/NU

NO.	DESCRIPTION	BY	CHK'D	APP'D	DATE
REVISIONS					

REGISTERED PROFESSIONAL ENGINEER
S. TOLOVSKI
LICENSE
30/08/13
NT/NU

REV.	ISSUE FOR	AUTH. BY	DATE
0	CONSTRUCTION	LG JT	2013-08-30
ISSUE AUTHORIZATION			

HATCH™

DESIGNED BY L. GUO DATE 2013-08-23	DRAWN BY C. REN DATE 2013-08-23
CHECKED BY M. KARABELA DATE 2013-08-23	DISCIP. ENGR. J. TOLOVSKI DATE 2013-08-23
PROJ. DES. COORD. T. THERTELL DATE 2013-08-23	PROJ. ENGR. J. CLELAND DATE 2013-08-23
PROJ. MGR. S. PERRY DATE 2013-08-23	

Baffinland

MARY RIVER PROJECT

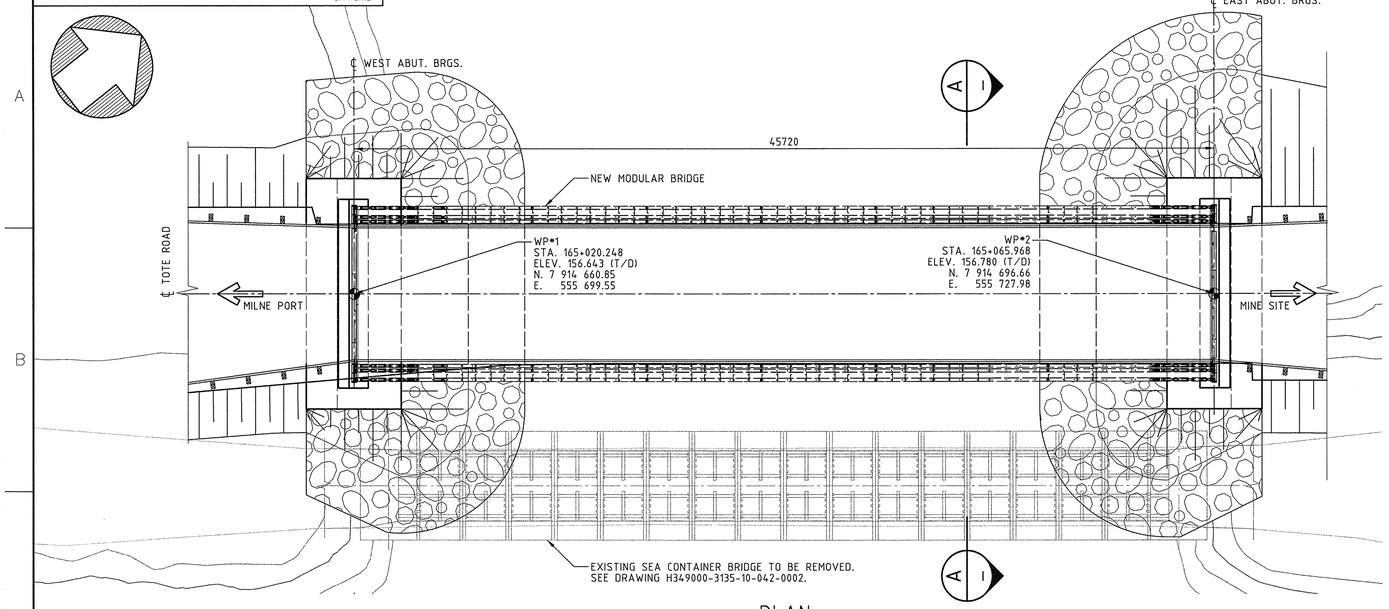
TOTE ROAD
RIVER CROSSING AT STA. 80
GENERAL ARRANGEMENT

SCALE	DWG. NO.	REV.
OR AS NOTED	H349000-3134-10-042-0001	0

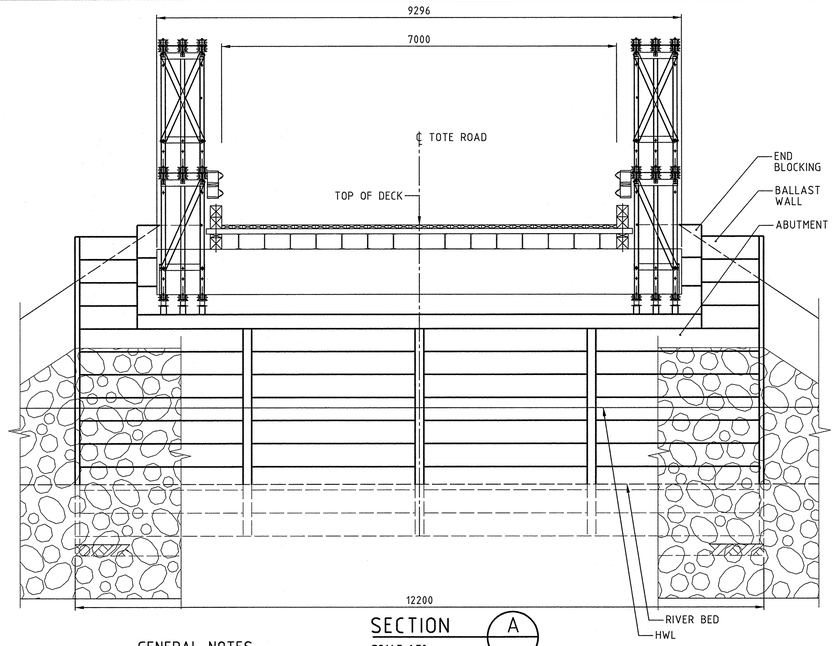
ORIGINAL SHEET SIZE: ISO A1 (841 x 594)

ren56609
8/30/2013 3:06:06 PM
c:\prj\projectwise\ren56609\dms74793\H349000-3134-10-042-0001.dgn

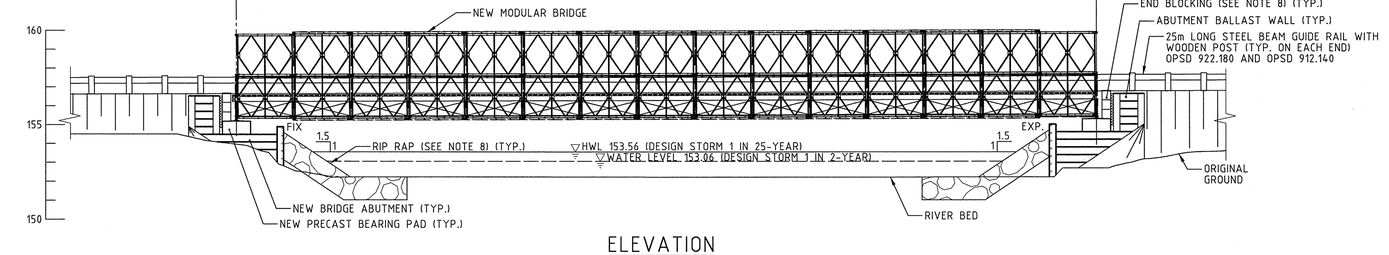
DWG. NO. H349000-3135-10-042-0001



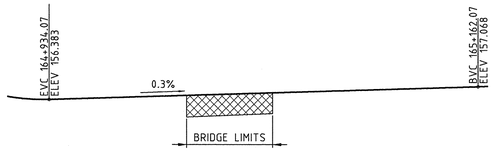
PLAN
SCALE 1:150



SECTION A–A
SCALE 1:50



ELEVATION
SCALE 1:150



PROFILE ALONG CENTERLINE OF TOTE ROAD
NTS

ABBREVIATION:

ABUT.	ABUTMENT
BRGS.	BEARINGS
℄	CENTRELINE
ELEV.	ELEVATION
EXP.	EXPANSION
HWL	HIGH WATER LEVEL
NTS	NOT TO SCALE
TYP.	TYPICAL
T/D	TOP OF DECK
WP	WORKING POINT

FOR CONSTRUCTION

GENERAL NOTES:

1. CLASS OF CONCRETE.
   PRECAST BEARING PAD AND END BLOCKING.....30MPa
   REMAINDER.....30MPa
2. CLEAR COVER TO REINFORCING STEEL:
   PRECAST BEARING PAD.....70±20
   UNLESS OTHERWISE NOTED.
3. REINFORCING STEEL SHALL BE GRADE 400W.
4. UNLESS SHOWN OTHERWISE, TENSION LAP SPLICES SHALL BE CLASS B.
5. BAR HOOKS, WHERE REQUIRED, SHALL BE MINIMUM LENGTH AND STIRRUPS SHALL HAVE MINIMUM HOOKS AS PER MANUFACTURER'S GUIDELINES UNLESS INDICATED OTHERWISE.
6. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
7. ALL ELEVATIONS AND COORDINATES ARE IN METERS UNLESS NOTED OTHERWISE.
8. SEE DRAWING H349000-3130-10-035-0001 FOR ABUTMENT, RIP RAP AND END BLOCKING DETAILS.
9. REFER TO BRIDGE AND ABUTMENT SUPPLIERS' DRAWINGS FOR MORE DETAILS.
10. THE BRIDGE AND ABUTMENT IS DESIGNED FOR ONE DESIGN TRUCK PASSING OVER THE BRIDGE AT EACH TIME.

CONSTRUCTION NOTES

1. THE MODULAR BRIDGE, LAUNCHING NOSE, ROLLERS, PRECAST CONCRETE BEARING PAD, END BLOCKING, STEEL BEAM GUIDE RAIL SYSTEM AND BRIDGE ABUTMENT COMPONENTS TO BE SUPPLIED BY BAFFINLAND (THE OWNER) ARE TO BE SHIPPED TO THE CROSSING SITE.
2. ALL BACKFILL MATERIALS AND RIP RAP IS SUPPLIED BY BAFFINLAND (THE OWNER)
3. ALL EXCAVATION ON SITE IS TO BE DONE BY OTHERS.
4. THE CONTRACTOR IS RESPONSIBLE FOR ERECTING ALL COMPONENTS OF THE MODULAR BRIDGE AND BRIDGE ABUTMENTS AND BACKFILLING IN ACCORDANCE WITH THE MANUFACTURERS' SPECIFICATIONS.
5. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING THE PRECAST CONCRETE BEARING PAD, END BLOCKING AND STEEL BEAM GUIDE RAIL SYSTEM.
6. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS OF THE PROPOSED WORK AND ALL DETAILS ON SITE AND REPORT ANY DISCREPANCIES TO THE CONTRACT ADMINISTRATOR BEFORE PROCEEDING WITH THE WORK.
7. THE CONTRACTOR SHALL ENSURE THE STABILITY OF ALL COMPONENTS DURING HANDLING, TRANSPORTATION AND ERECTION UNTIL THE COMPONENTS ARE IN THE FINAL LOCATION WITH ALL PERMANENT BRACING, CONNECTIONS AND SUPPORTS IN PLACE.
8. GRADE AND ADD FILL ON THE EXISTING TOTE ROAD AS REQUIRED TO FACILITATE ONE WAY TRAFFIC ACROSS THE SEQUENCE DURING NEW BRIDGE LAUNCHING.

DRAWING NO.	DRAWING TITLE
REFERENCE DRAWINGS	

PERMIT TO PRACTICE
HATCH LTD.
Signature
Date 30 Aug 13
PERMIT NUMBER: P 512
The Association of Professional Engineers, Geologists and Geophysicists of NWT/NU

NO.	DESCRIPTION	BY	CHK'D	APP'D	DATE
REVISIONS					

REGISTERED PROFESSIONAL ENGINEER J. TOLOVSKI LICENSEE 30/08/13 NT/NU

REV.	ISSUE FOR	AUTH. BY	DATE
0	CONSTRUCTION	LG JT	2013-08-30
ISSUE AUTHORIZATION			

HATCH™

DESIGNED BY L. GUO DATE 2013-08-23	DRAWN BY C. REN DATE 2013-08-23
CHECKED BY M. KARABELA DATE 2013-08-23	DISCIP. ENGR. J. TOLOVSKI DATE 2013-08-23
PROJ. DES. COORD. T. THERTELL DATE 2013-08-23	PROJ. ENGR. J. CLELAND DATE 2013-08-23
PROJ. MGR. S. PERRY DATE 2013-08-23	

Baffinland

MARY RIVER PROJECT

TOTE ROAD
RIVER CROSSING AT STA. 97
GENERAL ARRANGEMENT

SCALE	DWG. NO.	REV.
OR AS NOTED	H349000-3135-10-042-0001	0

ORIGINAL SHEET SIZE: ISO A1 (841 x 594)

ren56609
8/30/2013 2:48:58 PM
C:\prj\projectwise\ren56609\dms74793\H349000-3135-10-042-0001.dgn

Appendix C.5:
Tote Road Culvert Sheet

Tote Road Culvert Sheet Data Sheet 1 of 5 (H349000-3000-10-088-0030, Rev. 1)

Tote Road Culvert Sheet Data Sheet 2 of 5 (H349000-3000-10-088-0031, Rev. 1)

Tote Road Culvert Sheet Data Sheet 3 of 5 (H349000-3000-10-088-0032, Rev. 1)

Tote Road Culvert Sheet Data Sheet 4 of 5 (H349000-3000-10-088-0033, Rev. 1)

Tote Road Culvert Sheet Data Sheet 5 of 5 (H349000-3000-10-088-0034, Rev. 4)

Culvert ID	KP Chainage	Hatch Chainage	Distance	Fish Bearing Status	Number of Pipes	Existing Diameter	Proposed Diameter	Existing Length	Proposed Length	E	W	Culvert C/L At Upstream		U/S INV. ELV.	Rip Rap Required	Culvert C/L At Downstream		D/S INV. ELV.	Rip Rap Required	C	Rip Rap Apron Leng	Slope	Skew Degree	What To Do	Comments
	(m)	(m)	(km)	(Y/N/P)	(n)	(m)	(m)	(m)	(m)	(mm)	(mm)	Northing	Easting	(m)	(Y/N)	Northing	Easting	(m)	(Y/N)	(mm)	(m)	(%)			
CV178A		+40	+40	NO	1		0.5		12		500				N				N	300				New	
CV178B		+542	+542	NO	1		0.5		12.5		500				N				N	300				New	
CV178C		+733	+733	NO	1		0.5		13.5		500				N				N	300				New	
CV178D		+848	+848	NO	1		0.5		17.5		500				N				N	300				New	
CV178E		1+655	1+655	NO	1		0.5		17		500				N				N	300				New	
CV174A	A3+429	1+963	1+963	NO	1	0.5		9	18		500			55.682	N			55.397	N	300		3.17		Extend	Extend 9m left
CV174B	A3+877	2+407	2+407	1 NO	1	0.15		11						51.303	N			51.132	N			1.55		Abandon	
CV174C	A3+987	2+517	2+517	NO	1	0.15	0.5	10.3	11		500			50.882	N			50.728	N	300		1.50		Replace	Replace with new length of 11m
CV173	A4+184	2+710	2+710	POTENTIAL	1	0.5		12	15.5		500				N				N	300				Extend	Extend 3.5m left
CV171	A4+582	3+109	3+109	NO	1	0.15	0.5	11	14		500			52.543	N			52.031	N	300		4.65		Replace	Replace with new length of 14m
CV170	A4+984	3+510	3+510	POTENTIAL	1	1		12			1000			45.630	N			45.038	Y	500	4	4.93		No Change	
CV169	A5+149	3+673	3+673	NO	1	0.5		9	12.5		500			46.834	N			46.541	N	300		3.26		Extend	Extend 3.5m right
CV167		4+198	4+198	POTENTIAL	1	0.5		15	17.5		500				N				N	300				Extend	Extend 2.5m right
CV166A	A5+770	4+242	4+242	POTENTIAL	2	1		15	23.5		2000				N				Y	500	4			Extend	
CV166B		4+243	4+243	POTENTIAL	2	0.5		15	22.5	50	2000				N				N	300				Extend	
CV165A	A6+746	5+258	5+258	NO	1	1.2		22.1			1200			43.725	N			42.568	Y	500	4.8	5.24		No Change	
CV164A	A6+999	5+523	5+523	NO	1	0.5		18	19		500			56.994	N			56.135	Y	300	2	4.77		Extend	Extend 1m right
CV164B	A7+249	5+725	5+725	NO	1	0.15		10.8						52.511	N			52.357	N			1.43		Abandon	
CV164C		5+767	5+767	NO	1		0.5		26.5		500				N				N	300				New	
CV162	A7+625	6+135	6+135	NO	1	1		9.5	18		1000			43.897	N			43.569	Y	500	4	3.45		Extend	Extend 8.5m right
CV161	A7+928	6+432	6+432	NO	1	0.5		9.9	23.9		500			40.280	N			39.643	Y	300	2	6.43		Extend	Extend 14m right
CV159	A8+100	6+601	6+601	POTENTIAL	1	1		12	23.5		1000			25.564	N			25.293	Y	500	4	2.26		Extend	Extend 4.5m left & 7m right
CV158A	A8+345	6+848	6+848	NO	2	0.5		12	16		1300			33.423	N			32.814	Y	300	2	5.08		Extend	Extend 3m left & 1m right
CV158B	A8+347	6+850	6+850	NO	2	0.5		18	19		1300			34.004	N			31.212	Y	300	2	15.51		Extend	Extend 1m right
CV157A	A8+657	7+164	7+164	POTENTIAL	2	1		12	20.5		2000			37.359	N			37.018	Y	500	4	2.84		Extend	Extend 5.5m left & 3m right
CV157B	A8+662	7+164	7+164	POTENTIAL	2	0.5		12	20	50	2000			37.357	N			37.315	N	300		0.35		Extend	Extend 5m left & 3m right
CV155A	A8+997	7+521	7+521	NO	1	0.25	0.5	12	14.5		500			37.418	N			36.466	Y	300	2	7.93		Replace	Replace with new length of 14.5m
CV155B	A9+003	7+524	7+524	NO	1	0.15		13.7						37.821	N			37.214	N			4.43		Abandon	
CV155C	A9+003	7+525	7+525	NO	1	0.15		13.7						37.815	N			37.353	N			3.37		Abandon	
CV155D	A9+145	7+679	7+679	NO	1	0.5		12	14		500			33.294	N			32.947	N	300		2.89		Extend	Extend 2m right
CV154A	A9+241	7+782	7+782	POTENTIAL	2	0.5		15	28		1800			30.500	N			30.154	N	300		2.31		Extend	Extend 9m left & 4m right
CV154B	A9+249	7+783	7+783	POTENTIAL	2	1		15	26.5	100	1800			30.662	N			30.154	Y	500	4	3.39		Extend	Extend 7m left & 4.5m right
CV153C		8+315	8+315	POTENTIAL	1		0.5		11		500				N				N	300				New	
CV153A	A9+892	8+375	8+375	POTENTIAL	1	0.5		12						37.332	N			37.287	N			0.38		Remove	
CV153B	A9+848	8+377	8+377	POTENTIAL	1	0.5		12						37.510	N			37.224	N			2.38		Remove	
CV153C	A9+849	8+379	8+379	POTENTIAL	1	0.5		12						37.518	N			37.400	N			0.98		Remove	
CV153D	A9+850	8+381	8+381	POTENTIAL	1	0.5		12						37.511	N			37.382	N			1.08		Remove	
CV152A	A9+950	8+480	8+480	POTENTIAL	1	0.5		22						42.678	N			41.147	N			6.96		Remove	
CV152B	A9+939	8+482	8+482	POTENTIAL	1	0.5		22						42.719	N			41.060	N			7.54		Remove	
CV152C	A9+940	8+485	8+485	POTENTIAL	1	0.5		22						42.753	N			41.032	N			7.82		Remove	
CV152D	A9+941	8+487	8+487	POTENTIAL	1	0.5		22						42.844	N			41.183	N			7.55		Remove	
CV152E	A9+943	8+490	8+490	POTENTIAL	1	0.5		22						42.807	N			41.164	N			7.47		Remove	
CV152F		8+520	8+520	POTENTIAL	1		1		22		1000				N				Y	500	4			New	
CV151A	A10+127	8+640	8+640	POTENTIAL	3	0.5		12	13.5		2100			62.772	N			62.251	N	300		4.34		Extend	Extend 1.5m right
CV151B	A10+102	8+642	8+642	POTENTIAL	3	0.5		12	14	50	2100			62.789	N			62.307	N	300		4.02		Extend	Extend 1m left & 1m right
CV150A	A10+125	8+663	8+663	NO	3	0.5		12	21		2100			63.131	N			62.515	Y	300	2	5.13		Extend	Extend 9m left
CV150B	A10+127	8+665	8+665	NO	1	0.5		12	21		500			63.216	N			62.499	Y	300	2	5.97		Extend	Extend 9m left
CV150C	A10+441	8+975	8+975	NO	1	0.5		12	14		500			61.044	N			60.704	N	300		2.83		Extend	Extend 2m right
CV150D	A10+609	9+140	9+140	NO	1	0.25		12						62.864	N			62.684	N			1.50		Abandon	
CV149	A10+623	9+124	9+124	NO	1	0.25	0.5	12	14.5		500			62.633	N			61.896	Y	300	2	6.14		Replace	Replace with new length of 14.5m
CV148A	A10+846	9+373	9+373	NO	1	0.25		12						66.098	N			65.793	N			2.54		Abandon	
CV148B	A10+847	9+374	9+374	NO	1	0.25		12						66.004	N			65.828	N			1.47		Abandon	
CV148C		9+373	9+373	NO	1		0.5		18		500				N				N	300				New	
CV146A	A11+014	9+544	9+544	NO	1	0.5		12						66.383	N			66.259	N			1.03		Remove	
CV146B	A11+017	9+546	9+546	NO	1	0.5	1	12	18		1000			66.446	N			66.226	Y	500	4	1.83		Replace	Replace with new length of 18m
CV146C	A11+019	9+549	9+549	NO	1	0.5		12						66.487	N			66.059	N			3.57		Remove	
CV146D	A11+018	9+551	9+551	NO	1	0.5		12						66.410	N			66.225	N			1.54		Remove	
CV146E	A11+017	9+553	9+553	NO	1	0.5		12						66.437	N			66.205	N			1.93		Remove	
CV144	A11+856	10+368	10+368	NO	1	0.5		9	11.5		500			83.517	N			83.426	N	300		1.01		Extend	Extend 2.5m left
CV137A	A12+704	11+213	11+213	NO	1	0.25	0.5	12	15.5		500			95.660	N			95.099	Y	300	2	4.67		Replace	Replace with new length of 15.5m
CV137B	A12+848	11+359	11+359	NO	1	0.25	0.5	9	14		500			97.386	N			96.482	Y	300	2	10.04		Replace	Replace with new length of 14m
CV136	A13+093	11+603	11+603	NO	1	0.25	0.5	18	13.5		500			91.811	N			91.227	N	300		3.24		Replace	Replace with new length of 13.5m
CV135	A13+327	11+838	11+838	NO	1	0.25	0.5	12	21.5		500			90.799	N			90.455	N	300		2.87		Replace	Replace with new length of 21.5m
CV134A	A13+674	12+183	12+183	NO	1	0.25	0.5	12	12.5		500			81.258	N			80.464	Y	300	2	6.62		Replace	Replace with new length of 12.5m
CV134B	A13+749	12+258	12+258	NO	1	0.5		12						79.198	N			78.542	N			5.47		Abandon	
CV134C	A13+851	12+360	12+360	NO	1	0.25	0.5	12	11		500			79.064	N			78.526	Y	300	2	4.48		Replace	Replace with new length of 11m
CV133A	A13+859	12+369	12+369	NO	1	0.25	0.5	12	11		500			78.806	N			78.240	Y	300	2	4.72		Replace	Replace with new length of 11m
CV133B	A13+953	12+462	12+462	NO	1	0.25	0.5	9	16.5		500			78.098	N			77.844	N	300		2.82		Replace	Replace with new length of 16.5m
CV133C	A14+189	12+643	12+643	NO	1	0.5		12						79.649	N			79.390	N			2.16		Abandon	
CV133D		12+872	12+872	NO	1		0.5		12		500				N				N	300				New	
CV195	A14+666	20+271	13+175	NO	1	0.25	0.5	18	9.5		500			79.587	N			79.506	N	300		0.45		Replace	Replace with new length of 9.5m
CV130	A14+871	20+476	13+380	NO	1	0.25	0.5	18	9.5		500			79.121	N			78.794	N	300		1.82		Replace	Replace with new length of 9.5m
CV129	A15+310	20+921	13+825	YES	1	1.2		18			1200			78.11	N			77.92	N	500		1.06		No Change	
Extra-01	A16+807	22+412	15+316	NO	1	0.5		12	13.5		500			75.869	N			75.613	N	300		2.13		Extend	Extend 1m left & 0.5m right
CV126	A18+724	24+332	17+236	NO	1	0.5		12	14		500			76.968	N			76.740	N	300		1.90		Extend	Extend 1.5m left & 0.5m right
CV125	A19+945	25+547	18+451	POTENTIAL	1	0.5		15	18		500			78.560	N			78.505	N	300		0.37		Extend	Extend 3m right
CV124A	A20+119	25+728	18+632	NO	1	0.5		9	14		500			80.254	N			80.242	N	300		0.13		Extend	Extend 4m left & 1m right
CV124B	A20+509	26+120	19+024	NO	1	0.25	0.5	9	10		500			83.248	N			83.165	N	300		0.92		Replace	Replace with new length of 10m
CV123A	A20+891	26+503	19+407	NO	2	0.5		12	14.5		1300			82.803	N			82.440	N	300		3.03		Extend	Extend 2.5m right
CV123B	A20+892	26+504	19+408	NO	2	0.5		12	14.5		1300			82.888	N			82.442	N	300		3.72		Extend	Extend 2.5m right
CV123C	A21+178	26+790	19+694	NO	1	1		12	18.5		1000			81.687	N			81.286	Y	500	4	3.34		Extend	Extend 4.5m left & 2m right
CV123D	A21+808	27+418	20+322	NO	1	0.5		12	14		500			90.365	N			90.344	N	300		0.18		Extend	Extend 2m right
CV123E	A22+330	27+929	20+833	NO	1	0.5		9	11.5		500			96.351	N			96.011	N	300		3.78		Extend	Extend 2.5m right
CV123F	A22+764	28+373	21+277	NO	1	0.25		6						95.655	N			95.487	N			2.80		Abandon	

NOTES:

1. Abandoned culverts should have the ends backfilled and left in place
2. Remove indicates that culverts should be dug out and a ditch left in its place
3. New culverts are to be installed as per H349000-1000-10-041-0003
4. Replace indicates that culvert existing at the same chainage is to be removed and replaced as per H349000-1000-10-041-0003
5. No Change indicates that the culvert should be left as is
6. For fish bearing culverts, refer to drawing H349000-4138-10-035-0002
7. Invert elevations are approximate. Culverts should be placed to match field conditions
8. CSP culverts to be used throughout
9. Erosion Control Measures will be installed as directed by the site environmental engineer or designate
10. Before beginning any construction for installation works adjacent to a fish bearing culvert stream or other adjacent water body, the site environmental engineer or designate will be consulted as to what erosion mitigation measures are to be installed to protect the water from contamination by soil

LEGEND

D	CULVERT DIAMETER
E	EMBEDMENT DEPTH
C	CULVERT SPACING AND BEDDING CLEARANCE C=500 WHILE D>900mm C=300 WHILE D<=900mm
W	CULVERT BACKFILL TOP WIDTH W=n•D+(n-1)•C
TYPE	CULVERT MATERIAL
U/S INV. ELV.	CULVERT UPSTREAM INVERT ELEVATION
D/S INV. ELV.	CULVERT DOWNSTREAM INVERT ELEVATION
L	RIPRAP APRON LENGTH L=4•D (APPROX.)
S	CULVERT SLOPE
LENGTH	CULVERT LENGTH

FOR CONSTRUCTION

DRAWING NO. | DRAWING TITLE

REFERENCE DRAWINGS

PERMIT TO PRACTICE
HATCH LTD.
Signature
Date 27 Jan 2014
PERMIT NUMBER: P 512
The Association of Professional Engineers, Geologists and Geophysicists of NWT/NU

REVISIONS

NO.	DESCRIPTION	BY	CHK'D	APP'D	DATE
1	REVISION TO FISH BEARING STATUS	KM	JT	JT	2014-23-01

REGISTERED PROFESSIONAL ENGINEER
J. TOLOVSKI
LICENSEE
24/01/14
NT/NU

ISSUE AUTHORIZATION

REV.	ISSUE FOR	AUTH.	BY	DATE
1	CONSTRUCTION	RN	JT	2014-01-23
0	CONSTRUCTION	RN	DW	2013-08-30

HATCH™

DESIGNED BY E. YU DATE 31/05/13
DRAWN BY D. WIGMORE DATE 31/05/13
CHECKED BY J. TOLOVSKI DATE 31/05/13
DISCIP. ENGR. R. NUSINK DATE 31/05/13
PROJ. DES. COORD. T. THERTELL DATE 31/05/13
PROJ. ENGR. J. CLELAND DATE 31/05/13
PROJ. MGR. S. PERRY DATE 31/05/13

Baffinland

MARY RIVER PROJECT

TOTE ROAD
CULVERT DATA
SHEET 1 OF 5

SCALE NTS OR AS NOTED

DWG. NO. H349000-3000-10-088-0030

REV. 1

ORIGINAL SHEET SIZE: ISO A1 (841 x 594)